Rec^d. Oct 21, 11 Ans^d. Oct. 24. New Orleans Septr. 25: 1834.

[illegible]

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

[illegible]

1. [illegible]

2. An air pump [illegible]

3. [illegible] platina [illegible]

4. [illegible]

5 electricity. Galvanic, if a good one complete with corresponding tubes can be had for $50. otherwise a smaller one, only we will furnish the [illegible] [illegible] [illegible].

6th. The [illegible] [illegible] for warming apparatus.

1 [illegible] [illegible] [illegible]. 3 half gal hydraulic receivers for oxygen. 0 gal 20. 0 pint 20. to apply to water. The [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible].

*8. [illegible]. 2 Cylinders to contain the [illegible] gas, [illegible] for continued [illegible]. 2. [illegible] bottles. — 1 doz test tubes.

*7th [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. &c, $50

[illegible] [illegible]. & 3 Thermometers for different purposes, 1 differential thermometer with col. fluid. — 1 small argand lamp.

*9th [illegible] [illegible] table [illegible] [illegible] lamps. $40.

~~[illegible]~~ The exchange! [illegible] not calculated.

11. Specimens of the various [illegible] with as far as practicable as one or minerals to exhibit them in a natural state. These & these expensive may be [illegible].

12th Specimens of the earthy & alkaline bases which are too costly except those of a few characteristic experiments I shall not be able this session to prepare them in quantity owing to the time necessary in fitting up a laboratory and preparing [illegible] [illegible].

In the meantime possibly that these things will cost less than the amount which I should like to have [illegible] a [illegible] for electro-magnetism. we have a good machine, [illegible],

TORREY CORRESPONDENCE
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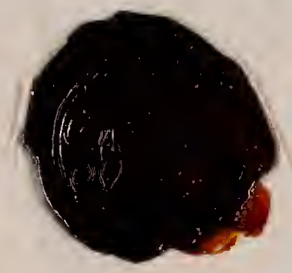
Dr Torrey. Z. Hunde.



Recd. Oct. 25
Ans. Decr. 2nd

LIBRARY.
NEW YORK
BOTANICAL
GARDEN.

New Orleans Oct. 10th

My Dear Sir

I shipped yesterday by the Kentucky a small portfolio of plants for you, chiefly grasses, which I hope may prove acceptable. You will have the goodness to send on board for them. They were placed in charge of the Captain and are somewhere in the cabin.—

The erroneous reference to Elliott in my last resulted from having lent my copy, and quoted from memory I allude to the Gentiana & Sirpus quadrang.

I have made this fall a somewhat fruitless excursion to the head of Barataria bay. Some of the meagre results are in the port-folio. To morrow I intend taking a trip over the Lake (Pontchartrain) chiefly with reference to the Cyperacea & Synanthera which I infer from your letter will be most acceptable to you at present. My collection of the latter order has been almost entirely destroyed by insects: but I hope by seizing every opportunity for collecting to make out a few sets of our species for you before long.—

One of the most interesting plants in my Barataria excursion is the Nelumbium codophyllum. The flower looks exteriorly like a magnolia grandiflora and is elevated about a foot above the water on a straight quadrifistulous stem. The leaf is full 2 feet in diameter. I measured it in consequence of Mr Eaton's (?)

MAR 4 - 1907
Given by A. M. VAIL. from the J. J. Crooke Collection

The Creoles value it as a remedy - assigning it the important qualities of "rafraîchissant et calmant." The calycine leaves pass by gradation into petals & it seems to me impossible to determine the number; the 3 outer ones seem to adhere more strongly to the stem. It grows in fresh or brackish water about 3 feet deep. The species of potamogeton, with whorled flowers in interrupted spikes is from the same locality. The Bayou through which we found our way to the bay is completely mantled over with aquatics — Heteranthera, Lemna, Lussienia - a large polygonum Nectris, Pistia. &c. The last curious plant when eaten leaves on the fauces the most penetrating & permanent pungency I have ever experienced - yet it is so devoured while growing by insects I have never been able to get a decent specimen. Along the margin of the Bayou I noticed several species of convolvulus. Sagittaria obtusa & rigida - Typha &c. - The only tree in such places is the Cypress hung with Tillensia. - Shell-banks occur here and there through the marshes covered with live oak. It is a singular but well attested fact that in digging these shell-banks to bring the shells to the city, the labourers find at several feet depth - the remains of fires - pieces of charred wood pottery &c - I have part of a skeleton excavated from a bank on which a live oak 4 ft in diameter was growing! The shells are a species of venus about 2 inches in diameter, but the quantity incalculable. If according to popular opinion they were collected for food there must have been enough to have fed all the inhabitants of our globe for all the time they have lived.

A living species of ammus occurs here which so far as my uninitiated discrimination extends is identical with these fossil collections. –
Their connexion with the aborigines I take to be simply this; that being the highest and driest places in the marshes the Indians camped on them, and buried their dead in them. The action of a thousand storms will account for the remains of fires being found at great depth below their present summits.

In the port-folio now sent you will find our Panics – I should be obliged to you for such specimens of the northern species as do not grow here, P. Italicum we have but I have no specimen on hand.
A few Carices have been sent. I shall collect others as fast as possible. – There are still many plants in the first collection about which I am anxious to have your opinion, and shall look anxiously for a letter. I shall make soon some addition to my botanical library, and shall be happy to receive your flora & Dr Greg's N. Amer. Gram. & Cyp. with the annals of the N.Y. Lyceum – If you will send them with the prices I will remit the am^t. What is the price of Kunth's Enum: & can it be got in N.Y. –

Most Respectfully Yours

T. R. Ingalls

Prof. Torrey.

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Dr. John Torrey

New York

Nov. 13. 182?

✓

2 Earthen & 1 Leaden Retorts

✓ 2 ½ gal. Bell-glasses with large tubes for deflagrating.

✓ 2 ¼ gal.ⁿ with cap; stop cock & double male connector.

3 graduated tubes

✓ 2 Table furnaces

✓ 1 doz. Stop cocks – (6 to match the bell glasses). – Connectors 6

1 ~~Lit~~ gas ~~burners~~.

✓ Woulfe's apparatus 4 pint. 2 qt.

✓ 3 Bolt heads. 2 flasks

1 Differential Thermometer large with col^d fluid.

1 Standard do

6 Thermometer tubes.

6 Tubes for air thermometers.

1 Cast Iron Merc^l Trough.

Borrow 1114 with receivers to fit – 3 cap^d.

3 tub^d. 3 plain. Foot bath & shelf

3 lampstands with rings – spirit lamps &c. [Aphlogistic lamp]

20 ft lead tube. 10 ft 6 copper
2 sizes

2 cork perforators

Soldering iron & solder

3 gun barrels & 1 small oxy gun bot

Quick silver bottle with wrought iron tube.

1 Iron mortar (turned)

1 wedgewood. – large.

✓ 3 glass funnels, 1 glass measure

1 Doz test tubes & rack.

4 India Rubber bags

Improved Galvanic Battery
~~3 glass funnels~~ $50. to $75.

Hygrometer.

Galvanic pile & models

✓ Common air pump.

✓ Marcet's apparatus for high pressure steam

✓ Spirit lamps

Double bellows & tin tube – small (note)

Mirrors for radiation &c &c

Crucible tongs & spring forceps

Compound blow-pipe to fit the pneumatic trough.

✓ Screws & block for adjusting apparatus.

60 painted blocks for illustrating the doctrine of definite proportions.

✓ 2 decomposing jars – large tumblers &c

Brass caps for tubes & jars

Ether jets

Safety lamp & gauze

Cryophorus. Gas pistol.

Rod & Ring apparatus.

Small balloon of Gold beaters skin – $8.

Tubes for attaching bladders to stop cocks – Scale of Chem. Eq^ts

Iron ladle. Deflagrating ladles

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

6 wedgewood dishes ½ doz Sauce
Platina wire sponge foil & the native metal - (I have a crucible)
Copper Iron & brass wire
Bottle brushes & apparatus for washing bottles & other vessels
Apparatus for freezing waters by sulph. ad.
Etching apparatus.
Prisms. Volta's Eudiometer.
Glass fire pump.
Apparatus for exhibiting the diff. conducting power of metals.
Prince Rupert's drops
5 lbs Refined Nitre.
Barilla & Kelp.
Native Chloride of Soda Chl.
Fluor Spar - cryst. Can you purchase me some of the large Derbyshire cubes?
Boiled plaster of paris.
Varieties of Sulph. Lime
Glacial quadriphos. of Lime
Minerals of Barytas & Stron.
Red fire
Magnesian minerals -
Alumina - pure
Iron Safts turnings Vessels of Zinc
Aurum Musivum.
Cadmium & sulph.
Cobalt metal Zaffre Smalts & azure blue.
Arsenic test tubes
Chrome & minerals

Lead, Copper, Antimony Bismuth Cobalt Arsenic Nickel as per catalogue.

Brazil wood Log wood Cochineal
Linseed oil olive oil Sp. turpentine
Camphor Shell lac mastic
Venice turpentine Rosin.
Tartaric acid (Chlo) Oxalic Gallic
Acetic pyroligneous Acetate of Copper, Emery 3 sizes Gummed Labels, Isinglass glue paste.
Stone Corks.
Filtering & other paper
Chalk crayons Twine thread & cord. Beeswax
Sheet tin copper & zinc -
Bladders. Steel & copper turnings & filings. Naptha.
Pulv. blk lead. Block tin, Zinc & lead.
Pure muriatic nitric & sulph. acid - (I have the common)
Nitrate ammonia.
Glacial phosphoric acid;
Lamp black. Ivory black.
Bisulphuret of Carbon
Boracic acid native
Pure silicious earth & Legious silicum.
Selenium $1.50
Potassium & Sodium $5.

The forcing pump & fountain I don't understand unless it is for the little pneumatic exp.t If however it can be used as a blow-pipe for air or oxygen I should like it.

I don't succeed well with the mouth blow-pipe in tube work. As to "bellows for forge I shall have no regular forge for this winter as our medical building is not built. So I should like if practicable a bellow about 3 ft in total length suspended under a little table to work with treddle for a portable furnace. This will do for blast furnace forge &c. — Perhaps also the same thing may be used as table-blow-pipe. I have long thought what is called the treddle engine might be made for the laboratory. with adaptations for working bellows turning a small grind stone grinding glass &c &c. Pray think of it.

My dear Sir. I write in the utmost haste as I fear it will be impossible to have these articles sent before we commence our term. Several of the things in your catalogue I have already procured or shall find it necessary to procure for preliminary operations. Those above enumerated I beg you will send as early as you possibly can consistently with your avocations. I am aware of the trouble I am giving you. But there is no one in or at work to whom I can apply. In regard to the funds I only wait for a meeting of the faculty, which is fixed a few days hence, to transmit either to you or some person who will place it in your hands, $200 or $300. If any part of the apparatus take time to prepare pray send as once what can be immediately got them. Employ Chilton where you can, we are willing to pay for his trouble but I believe shall not want credit.
Have the goodness to remember the Paris catalogue.
I shall feel under deep personal obligation for the minerals & preparations you are so kind as to offer; they will be of eminent service, more especially as such things are not to be purchased, & it is handy practicable to make them in the hurry of a lecture season. You mention Farraday with due praise. I have a well thumbed copy.

I hope you have received my port-folio by the Kentucky. I shall send another soon. I have one in progress containing about 150 species. I found or rather purchased the other day of a sailor several specimens of the Brown mouthed cowry. Cypræa fusco-dentata. Gray. Monog. I have not the honor to correspond with the Lyceum but if your shell men consider it curious, as marked by Gray,

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY.

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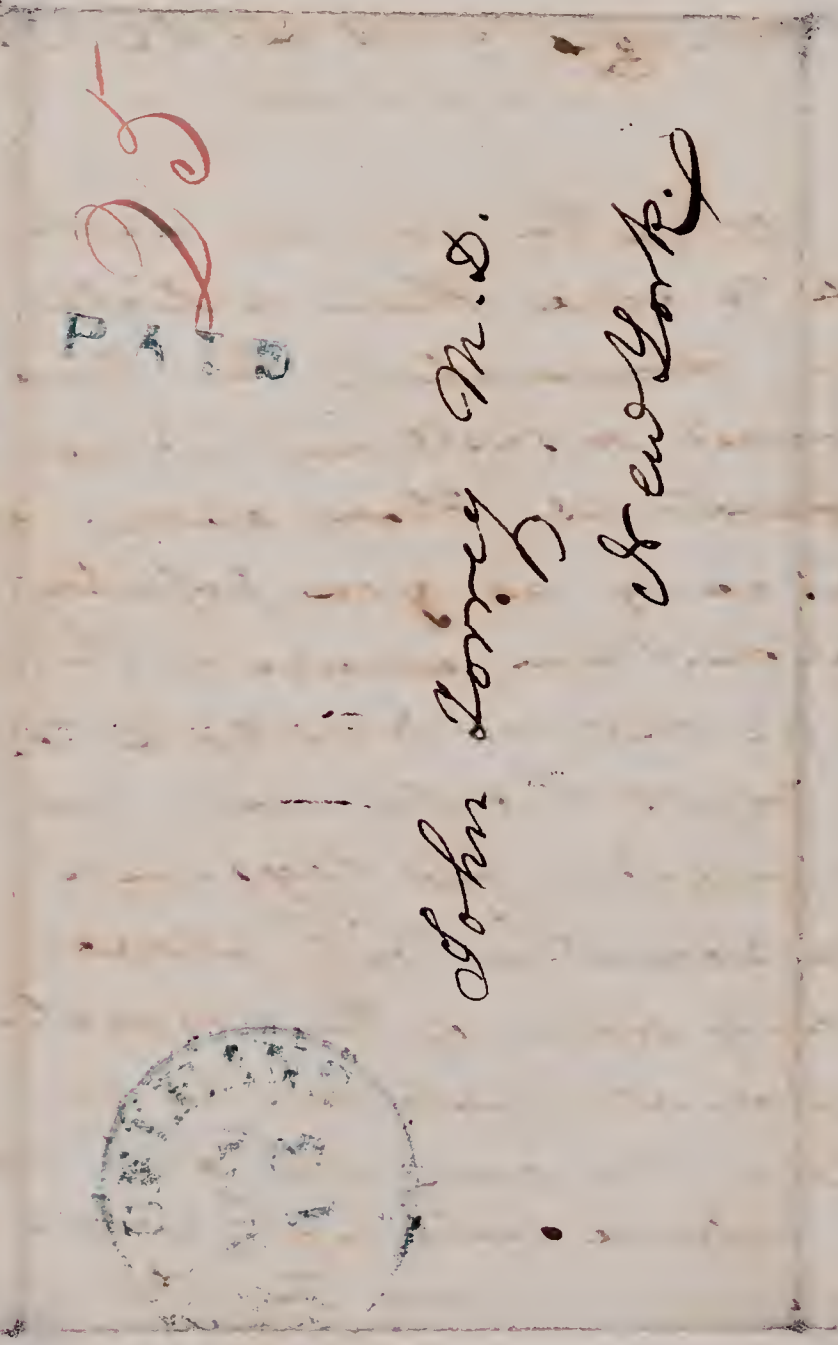
PAID

John Torrey M.D.
New York



shall take pleasure in sending a suite of the several ages through you. By the by when I lived at Jackson I picked up in the bed of a stream a number of rolled pebbles (silicious) containg turbinoles Favosites & the older multilocular remains - they belong to the diluvial beds of that country. They are scandalous looking specimens mere gravel - but I can send a few quarts of them if they are of any importance. Truly Yours.
T R Ingalls.

TORREY CORRESPONDENCE
HERBARIUM
COLUMBIA UNIVERSITY

Rec'd. Jan'y 2nd.

New Orleans Dec'r. 16th. 34

My dear sir

I have just rec'd your valued favor of the 29th. & 1st Inst. My list of articles was made out with yours before me & I omitted only such as I either had or could get here easily, or thought best to dispense with this season. Tubes retorts & receivers, except such as I mentioned I had already obtained. Quick-silver is I believe as cheap here as in New York: but your "pneumatic trough complete price $60." I put the strongest assurance is on the list sent. I hope, on looking over it again, you have found it. at all events do not fail to send it by the first vessel. The common mirrors you mention are such as I meant, as I shall take your advice and get a good lot from paris. I have not seen Rudd's chemistry & the plan of using demijohns for gasholders is new to me, but it at once strikes me as feasible & excellent. I shall send by the first opportunity my last portfolio for this season. The Laboratory will necessarily occupy all my spare time this winter. My fall collections have been limited owing to the long drouth, which in this climate alters the plants so much as to render them useless as specimens. You will find in the present port-folio annual new (not hitherto forwarded) grasses, but I regret to say my orchideæ are all destroyed. I shall endeavor to supply the defects next year. Is the "Uniola pubescens" entirely new, or recently described? I am glad you are satisfied my Sciurus is new. I have no objection to your name; tho' I am sorry the one proposed, which struck me as appropriate, is pre-occupied. Cyperus No. 14. of the present portfolio grows in damp woods: it may be a variety of erythorhizos - but if so it is much altered: the specimen is a good one. C. No. 9. I had already determined. Indeed I have not time

to correct my present package by your letter; & send therefore it as it was prepared some weeks since, except that a few plants have been thrown into the vacant leaves by way of filling — these being well known are not marked, they are sent for locality mealy. —

"Andropogon nutans" of the last portfolio has diciduous awns. Helenium No. 1. is abundant. "folies numerosis linearibus" will define it among American species. H. No. 2. is doubtless quadridentatum N. some of the tubes are 4 fid. The lower leaves are pinnatifid. It is quite unlike H. autumnale — never half so large. covers roadsides & old fields. "Justicia didynamia Tint". The name only is due to Mr Quinturus I have had the plant and considered undescribed for 3 or 4 years. The capsule is that of Justicia. I can't give up my Acalypha. I think they will ultimately be found distinct. I have always been uncertain which was virginica. We have several interesting species of this natural order but I have no specimens on hand.

I have marked all the plants in my present package about which there can be any question. There are two, both sent before, which I believe you have not named; one "Conydalis" the other "Undetermined A" which I beg you will notice. If also you will have the goodness to glance over my letters when writing again you will see several little things which will assist me. Before the spring opens you will probably have time to look over the old packages and bring up the arrearages; & our correspondence is now so far systematised by the plants already settled — that what with all this & my increased means of procuring and preserving plants I look forward to next summer with high expectations of pleasure and advantage from our intercourse.

TURNEY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

I want a work on shells containing the most complete list of species with descriptions I am told Dubois' Lamark is nearest what I need. If you think so be so good as to procure it for me; also Decandolle's organographie. I will make a further remittance of funds when necessary.

My Electric machine has a contrivance that I am unused to. viz. a thing like a brass lamp-perforated near the base of the cavity by an insulated wire. I presume it is for exploding - or igniting substances is there any other use? There is a similar one on the arch over the plate. Is there any advantage in very large conductors over batteries? The main brass conductor of my machine is 4 feet long & 5 inches in diameter - & there is another of tin 5 or 6 ft & near 12 in diameter. Among batteries is that of Mr. Dana (1st vol. Lil. Jour.) inferior to that of d[illegible] or liable to any objection?

You ask if I do not want tools. I shall be obliged to use this season a borrowed room & cannot fit up a work-shop as I wish to do. Every hard-ware articles that is found here our public-spirited merchants will give me at wholesale prices. But there are a few Goldsmiths articles I have not obtained - They are entered in my list at the foot of the last page. - Since I wrote the first page I have searched the shops for Reid's Chemistry but cannot find it. So I must ask instructions about the dunejohn gas holders - If there is any apparicl with them please send what is necessary fitted for use.

Respectfully Your Friend &

Dr. Torrey

Obedt Servt. V. R. Ingalls

P. I will write by the vessel conveying the plants as I don't know what one sails next. V. R. I.

TORREY CORRESPONDENCE HERBARIUM COLUMBIA UNIVERSITY

J. Ingalls
Dec. 10th 1834
Recd Aug. 2nd 1835

Dr. John Torrey
New York.

Books. &c

Journ. Acad. Nat. S. all after the 11th half vol. I have 5½ vols.
Deubois' Lamarck.
Berzelius System Chemistry french tran.
4th vol. Dumas' Traité.
½ Ream of your beautiful letter paper ("satin superfine")

List of articles wanted.

Tin foil
Pliers round & flat
Demijohn Gasholders.
Drill stock & drills.

TORREY ... ENCE
H.
COLUMBI...

A check for $250 was sent soon after my last. I hope it has arrived.